

## SEXUAL DIMORPHISM IN THE HUDSONIAN GODWIT

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MANY published descriptions of the Hudsonian Godwit (*Limosa haemastica*) read as if males were virtually indistinguishable from females. Of "adults in summer" Robert Ridgway (1919. *U. S. Natl. Mus. Bull.* No. 50, Pt. 8, p. 191) states flatly: "sexes alike." The caption for Robert Verity Clem's fine painting of a male in breeding feather in "The Shorebirds of North America" (G. D. Stout, Ed., 1967. Pl. 11, p. 89) states that the female is "quite similar." Yet bird observers who see the Hudsonian Godwit between mid-April and the end of May in central Oklahoma (see Sutton, 1967. *Oklahoma Birds*, p. 203) have no trouble distinguishing the richly colored males, whose underparts appear to be almost solid dark brick-red, from females with their comparatively pale, blotchy, almost piebald underparts.

Females are larger than males, too. The size difference is readily perceptible with specimens in hand, though not very noticeable in the field. Three carefully sexed males in the University of Oklahoma collection measure (in millimeters): wing 201–202 (201.4), tail 71–77 (73.6), culmen 73.5–75.5 (74.4), tarsus 55–56 (55.4); four females: wing 212–215 (213.5), tail 76–80 (78.0), culmen 88–90 (89.3), tarsus 60–64 (62.7). Ridgway's averages for four males (wing 203.5, tail 74, culmen 76.7, tarsus 57.5) and four females (wing 212.9, tail 77.9, culmen 79.5, tarsus 58.1) do not reveal this pronounced size difference, especially as regards the culmen and tarsus. Ridgway's statement that the sexes are "alike"; his comment (p. 192, footnote) that "some of the specimens measured doubtless have the sex incorrectly determined"; and especially his inclusion of the culmen length and tarsus length of 14 males and four females handled by G. S. Ageesberg in "Dakota" (see Coues, 1880. *Bull. Nuttall Ornithol. Club*, 5:60) convince me that some (perhaps several) of the eight specimens measured by Ridgway were, indeed, incorrectly sexed. The culmens of the males and females handled by Ageesberg averaged 74.9 and 87.4 respectively, the tarsi 57.1 and 63.2 respectively.

An aspect of the Hudsonian Godwit's sexual dimorphism that seems not to have received much attention pertains to bill-color at the height of the courting season. Note the following from "The Birds of Churchill, Manitoba" (Taverner and Sutton, 1934. *Ann. Carnegie Mus.*, 23:48): "It was noted during both 1930 and 1931 that after the courting season the orange color of the base of the bill in the male faded rapidly to dull fleshy. In field sketches made by the junior author from freshly killed specimens the base of the bill in the courting male is clear, rather bright orange; in females taken at the

same time the base of the bill is purplish flesh-color of a distinctly different appearance. Fading of the bill in the male brings it to a color approximately that of the female's. In 1930 all specimens collected after June had dull, flesh-colored bills."

Our color-plate is based on the above-mentioned field sketches made by me in 1931. The sketch of the male was made on 12 June, that of the female on 3 July. A comment in pencil to one side of the latter indicates that the colors of the bill might have been a little brighter earlier in the season; but they were never, according to my recollection, either yellow or orange. Today I might call the color at the base of the bill of the courting male rich yellow rather than orange. I feel sure, however, that the colors of the sketch have not faded, for the drawing has been kept under cover.

Male Hudsonian Godwits that we see as they move northward through Oklahoma have bills that are somewhat yellow at the base, but the color apparently does not become intense until the birds reach their breeding ground.

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